

Claims

1-11. (canceled)

12. (currently amended) A method for identifying an agent that inhibits T lymphocyte ~~differentiation and/or modulates B-cell development~~, the method comprising:

(a) assaying ~~a cellular activity of an inositol 1,4,5-trisphosphate 3-kinase B (IP3KB) or a functional derivative thereof having at least 90 % sequence identity with a sequence encoding IP3KB~~, in the presence of a test agent;

(b) ~~to identifying one or more modulating agents that inhibit the cellular activity level or kinase activity of the IP3KB; and~~

(c) testing ~~said one or more of the modulating agents for ability to inhibit T lymphocyte development at the double positive stage or function and/or modulate B-cell development~~; thereby identifying an agent that ~~modulates~~ inhibits ~~the production of mature T lymphocyte differentiation and/or modulates B-cell development~~.

13. (canceled)

14. (currently amended) The method of claim 12, wherein ~~said~~ one or more modulating agents identified in step (ba) inhibit kinase activity of the IP3KB.

15. (previously presented) The method of claim 14, wherein the kinase activity is to catalyze conversion of inositol 1,4,5-triphosphate (IP3) to inositol 1,3,4,5-tetrakisphosphate (IP4).

16. (currently amended) The method of claim 12, wherein ~~the modulating said one or more agents identified in step (b)~~ are tested for ability to inhibit CD4⁺ CD8⁺ T cell development into CD4⁺ or CD8⁺ T cells.

17-27. (canceled)

28. (currently amended) The method of claim 12, wherein the IP3KB has an amino acid sequence of Accession No. CAB65055, Accession No. CAC40660, Accession No. NP_002212 or SEQ ID NO: 1, ~~or a sequence having at least 90 % sequence identity with any of these sequences.~~

29. (currently amended) The method of claim 12, wherein the IP3KB is encoded by a polynucleotide having a nucleotide sequence of SEQ ID NO: 2, 3, or 4, ~~or a sequence having at least 90 % sequence identity with any of these sequences.~~

30. (currently amended) The method of claim 12, wherein said one or more ~~modulating~~ agents identified in step (ba) decrease cellular levels of IP3KB in a cell.

31. (previously presented) The method of claim 30, wherein the cell is selected from the group consisting of thymus cell, CD4⁺ CD8⁺ T cell, CD4⁺ T cell, CD8⁺ T cell, and NK cell.

32. (currently amended) The method of claim 30, wherein said one or more ~~modulating~~ agents identified in step (ba) inhibit the expression of a gene encoding IP3KB.

33-38. (canceled)

39. (new) The method of claim 1, wherein step c) comprises testing said one or more agents for ability to inhibit T lymphocyte development in the thymus.